
Overview

• Background MA Law and MDPH Regulations

• Implementation Activities

• Ongoing Evaluation

• Resources
Massachusetts Sports-Related Head Injury Law

In July 2010, Governor Patrick signed into law An Act Relative to Safety Regulations for School Athletic Programs.

• Aimed to improve the prevention and management of these injuries, promoting brain healing and reducing the risk of serious health consequences.

• Directed MDPH to develop a head injury safety program which resulted in regulations passed in 2011.
Key Provisions of the Regulations

• The regulations stress a **team approach**, bringing together all those in the school community responsible for the student’s safety.

• The major components of the Regulations are:
  – School Policies re: prevention and management of sports concussion – 21 required components
  – Annual Training for students, parents, medical and athletic staff
  – Pre-participation requirements for student athletes and parents
  – Exclusion from Play after a head injury
  – Medical Clearance and Return to Play
  – Data Reporting: Mandatory Year End School Report of Head Injuries
Scope of the Regulations

• Apply to all public middle and high schools (grades 6-12) and all other schools that are members of the Massachusetts Interscholastic Athletic Association

• Apply to all extracurricular interscholastic sports

• Does *not* apply to town or club sports (Little League, Pop Warner, etc.)
MDPH Activities Related to Implementation of Regulations

- Collaboration with MIAA, Mass. Medical Society, Sports Legacy Institute, MassPINN, BIA-MA, MDPH School Nursing, hospitals and others
- Technical Assistance and outreach to schools and medical providers
- Compiling/analyzing data from Year End Reports and letters of affirmations from schools
- Reviewing applications for annual training and clinical training for approval
- Revising/updating regulations
- Review school policies received to learn where schools need more TA
- Presentations to various stakeholders
- Increasing public health community awareness, e.g. Brain Injury Awareness Month speaker events
- Evaluation of implementation with school nurses and athletic trainers
Evaluation of Implementation of State Policy: Data Utilized

- Youth Health Survey
- School Reports of Head Injuries
- Evaluation Findings
- School Policies
- ED Discharges
Number of Schools Submitting Mandatory Year End Report with Number of Head Injuries, School Years 2011/2012 - 2013/2014

Reports due every year by 8/31 for all public schools grades 6-12 with extracurricular sports and other schools that are members of the MIAA.

190% increase in number of schools reporting demonstrate increasing awareness of the MA concussion regulations by MA schools.

Source: MA Department of Public Health
Examination of Sports Concussion Policies

- Schools required to develop policies with 21 required components involving pre-participation, removal from play, medical clearance, graduated return to play and required forms.

- Schools required to submit a “letter of affirmation” to MDPH on their policies.

- In 2013 and 2014, 100 and 53 school policies, respectively, were voluntarily submitted to MDPH with their letters of affirmation.

- MDPH systematically reviewed these policies
Findings on Convenience Sample of Sports Concussion Policies

• 2013 Highlights (N=100):
  – 92% of policies included a protocol for medical clearance before re-entry to sports
  – 27% of policies included a procedure for communicating with parents with limited English proficiency and reaching out to parents who have not filled out DPH required form
  – 46% of policies (46) contained 16 or more of the 21 of the key topic areas from the evaluation tool suggesting a basic understanding of the components of the policies. 4 policies had all 21 of the key topic areas.

• 2014 Highlights (N=53)
  - 90% of policies stated which individuals are required to complete the annual DPH approved training.
  - 28% of policies state penalties for failure to comply with the provisions of the school districts or school’s policy.
  - 58% of policies (31) contained 16 or more of 21 of the key topic areas from the evaluation tool, a higher percentage than 2013. But there was no policy of the 53 evaluated that had all 21 of the key topic areas.
Massachusetts Youth Health Survey

- Anonymous, written survey administered every other year in a sample of MA Middle and High Schools by the MA Department of Public Health in conjunction with the administration of the YRBS.

- Since 2009, MDPH has included a question attempting to gain estimates of sports-related concussions in youth.

- In 2013, MDPH included a follow-up question for those reporting symptoms of a concussion (What happened next?)
  - “I stopped playing sports that day, and also got checked by a doctor, nurse or health care provider”
  - “I stopped playing sports that day, but did not get checked by a doctor, nurse or health care provider”
  - “I continued playing sports that day”
Percentage of Massachusetts Students(1) Reporting Symptoms of a TBI(2) While Playing with a Sports Team in the Past 12 months

1) Includes only students who played on a sports team in the past 12 months.
2) Reported they suffered a blow or jolt to head while playing with a sports team (during a game or practice) which caused them to get "knocked out", have memory problems, double or blurry vision, headaches or "pressure" in the head or nausea or vomiting.

Source: MA Youth Health Survey, MA Department of Public Health
Percentage of Students Reporting Actions Taken Following Symptoms of a TBI(2) While Playing with a Sports Team in the Past 12 months

1) Includes only students who played on a sports team and who reported symptoms of a traumatic brain injury following blow or strike to head during sports in the past 12 months

Source: MA Youth Health Survey, MA Department of Public Health
Emergency Department Discharges Associated with Sports-related (1) Traumatic Brain Injury by Age Group, Massachusetts Residents, FY2008-2013 (N= 24,120)

Joinpoint trend analysis for 2008-2012:
• 12 to 14 y.o.: +9.8 Annual Percent Increase (statistically significant)
• 15 to 18 y.o.: +4.0 Annual Percent Increase (statistically significant)
• After this general upward trend, rates in both of these age groups declined in FY2013.

Source: MA Emergency Department Discharge Database, Center for Health Information and Analysis. Includes only cases with E-codes (E886.0, E917.0, E917.5) in any field. Sports-related TBI’s not receiving one of these E codes are not included in the counts. Includes all dispositions.
On the Horizon: Survey of School Nurses and Athletic Trainers

- Assessment of School Nurses’ and Licensed Athletic Trainers’ knowledge, attitudes, behaviors and impressions of local implementation of the sports concussion regulations.
  - Phase 1: Focus groups with these 2 groups held in April 2015 to collect qualitative information to inform a broader (quantitative) survey.
  - Phase 2: Implementation of broader written survey to school nurses and athletic trainers across the state.

- Goal – to identify local and statewide barriers and facilitators, disparities across schools, and action steps/resources needed to improve policies, programming, and technical assistance.
www.mass.gov/sportsconcussion

- Required Forms
- Copy of the Regulations
- List of approved annual trainings and clinical trainings
- *Head Strong*, Model Guidance for Schools